United States Department of Agriculture

Economic Research Service

Agriculture Information Bulletin Number 529

August 1987

Financial Performance of Specialized Corn Farms

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Specialized corn farms--those with at least 50 percent of their production from corn and with at least $40,000 in total production--fared relatively well among specialized crop farms in 1985. Only specialized tobacco and nursery farms had better returns on their gross revenues, and only specialized nursery farms were more likely to have positive returns on their gross revenues. Corn production is heavily concentrated in 12 States where corn specialty farms produce about 85 percent of all U.S. corn sold off the farm. Specialized corn farms in the aptly named Corn Belt were the most prosperous. Those in the Lake States were less prosperous than the Corn Belt and Northern Plains farms, but they had the highest asset and equity levels of the three regions.

Corn sales are the largest single source of crop receipts for the U.S. agricultural sector at about 20 percent of the total. In 1985, they amounted to $16 billion. For more than 130,000 farms nationwide, corn was at least 50 percent of their value of production. These farms were about 15 percent of all farms which produced any corn.

This report presents information on the revenues, costs, and finances of farms with at least 50 percent of their production from corn and with at least $40,000 in total production. These 81,600 farms, termed specialized corn farms, are most affected by Government corn programs and policies. They represent the farms that both sell the bulk of U.S. corn and rely on corn sales for a substantial proportion of their farms' income. They produced 38 percent of all corn, whether fed on the farm where produced or not, and about half of the corn not used for feed on the farms where produced. In turn, corn production accounted for 65 percent of the value of specialized corn farms' production.

About 50,000 farms nationwide specialize in corn but are excluded from the commercial specialized group because they have total agricultural production of less than $40,000. Half of these farms are in the Corn Belt region and are heavily dependent on their off-farm sources of income.

The information on specialized corn farms is based on the 1985 Farm Costs and Returns Survey. Until the next Census of Agriculture data become available (sometime after 1988), the Farm Costs and Returns Survey data are the only national source of farm level data.

This report also presents general information on all farms producing corn. The general information on all farms producing corn are from the Census of Agriculture, the 1985 Farm Costs and Returns Survey, and the 1985 *Economic Indicators of the Farm Sector* series.

In 1982, the latest Census of Agriculture reported that over 506,000 farms sold corn for grain out of the Nation's 2.2 million farms. However, only 177,000 farms had 50 percent or more of

their sales in corn, classifying them as a corn farm under the Standard Industrial Classification system. Many farms produce corn mainly for feed for their own livestock operations. The proportion of total corn production (like other feed crops) which is fed to livestock on the farm where it is produced has declined over time, but it is still a large share of production. In crop year 1984–85, about 25 percent of corn production was used on the farms where it was produced. Corn–producing farms may not specialize in corn for other reasons, such as to reduce risks from crop failures or low market prices.

About 50 percent of the farms which sold corn for grain in 1982 had less than $40,000 in total sales (fig. 1). They accounted for less than 12 percent of all corn for grain sales. Corn sales are much less concentrated on large farms than the total of U.S. sales. For example, the 1.4 percent of the largest specialty corn farms (sales of $500,000 or more) accounted for 11.4

General Terms and Returns Definitions

Commercial farms produce $40,000 or more in agricultural commodities in 1 year.

Specialized corn farms are commercial farms whose value of corn production not used as feed on the farm where it is produced accounts for 50 percent or more of the value of the farm's total crop production plus livestock commodity sales.

Net returns equals gross revenue less total expenses (or costs) for the farm business. This measure does not include farm operator household income and expenses or expenditures for capital items and depreciation. Thus, net returns equals residual returns to owned inputs and own labor and management before capital replacement.

Gross revenue equals the sum of livestock commodity sales, the value of crop production (less that fed to livestock), direct Government payments, income from rental of farmland, the rental value of hired laborers' dwellings, and other cash farm–related income.

Total expenses are all cash variable and fixed business expenses, except for capital consumption, but including share rental expenses, inkind payments to hired workers, and purchased livestock.

Capital expenditures are for purchases of farm machinery, office machines, and construction costs.

Returns margin equals net returns divided by gross revenue. This measure provides an indicator of how effectively gross revenues are converted to net returns.

Return to assets equals the sum of net returns and interest expenses divided by the value of assets. This measure of performance represents the returns to assets, labor, and management before capital replacement.

Size classes are based on the sum of the value of crop production (less that fed to livestock) and gross sales of livestock commodities. The categories are set at:

$40,000 to $99,999 (small commercial farms),
$100,000 to $499,999 (midsized commercial farms), and
$500,000 or more (the largest farms).

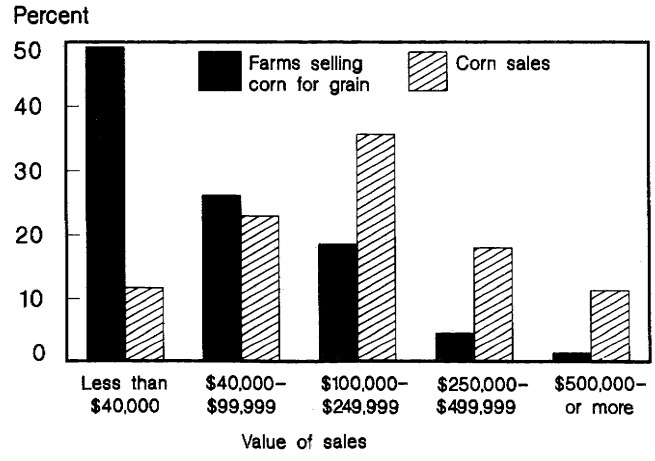
percent of corn sales, compared with the 1.2 percent of all large farms accounting for about 30 percent of U.S. agricultural commodity sales.

Although corn production is less concentrated than many other types of commodities, concentration in corn production has been increasing. The number of farms producing corn declined between 1974 and 1982 but the number of acres of corn harvested increased. These changes did not occur proportionately across farm sizes. For example, the number of corn farms in the size groups below $100,000 in sales (in constant 1982 dollars) declined between 1974 and 1982, and the number with sales of $100,000 or more increased in size (fig. 2). Since 1982, acreages have been erratic, at levels both above and below the 1982 level.

GROSS REVENUE AND NET RETURNS

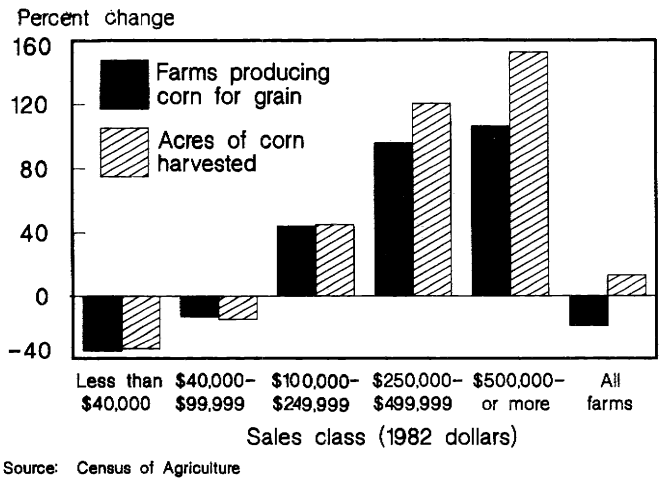
The principal shortrun measure of financial health is net returns which, for all specialized corn farms, was $18,700 in 1985. More than one in five of these farms had negative net returns. Average off-farm income was $13,600 for all specialized corn farms which was 73 percent of the magnitude of the net returns from farming.

Figure 1
Most U.S. corn sales were from farms with total sales of $40,000-$249,999 in 1982



Source: Census of Agriculture 1982.

Figure 2
U.S. corn production shifted to larger farms during 1974-82



Source: Census of Agriculture

Table 1--Average net returns, gross revenues, and components of gross revenue for specialized corn farms by size class, 1985

Size class	Average net returns	Average gross revenue	Average share of gross revenue per farm: Corn	Soybean	Other crops	Livestock	Government payments	Other farm-related income
	Dollars		Percent					
$40,000-$99,999	11,689	74,784	60	22	4	3	8	3
$100,000-$499,999	24,368	213,779	57	23	4	6	7	3
Over $500,000	81,112	823,019	65	14	4	7	9	1
All	18,731	151,793	59	23	4	5	7	3

Source: 1985 Farm Costs and Returns Survey.

Average gross revenue ranged from about $75,000 to $823,000 over the three size classes depicted in table 1: small commercial farms, midsized commercial farms, and the largest farms. The table shows how the sources of income varied by size class. Midsized farms were the least specialized; corn sales were the smallest proportion of gross revenue for the midsized commercial farms, 57 percent. The midsized farms on average had the highest proportion of gross revenue from crops other than corn, 27 percent. The other crop most commonly produced by specialized corn farms is soybeans. In 1985, 86 percent of the specialized corn farms also produced some soybeans (see "Combined Corn–Soybean Operations" on page 11). The next most common enterprises on specialized corn farms were hay (36 percent), wheat (29 percent), cattle (28 percent), and hogs (13 percent).

Several trends were evident among size classes. As farm size increased, the livestock share of revenue increased, ranging from 3 percent for small farms to 7 percent for large farms. Other farm–related income, such as income from machine hire, declined as farm size increased.

Eligibility for direct Government payments is generally based on a farm's usual (base) production level of the supported commodities. Government programs exist for both corn and soybeans. The 1985 programs offered both direct payments and loans for corn. Only a loan program was available for soybeans. Thus, the largest farms with 65 percent of their gross revenue from corn had 9 percent of their gross revenues from direct Government payments. The midsized farms with a smaller share of gross revenues from corn and a higher share from soybeans had only 7 percent of their gross revenues from direct Government payments.

Because average net returns increase as farm size increases, comparisons of net returns to gross revenues (the returns margin) or comparisons of net returns before interest expenses to assets (the returns/assets ratio) are more meaningful indicators of profitability. The average returns margin for all specialized corn farms was 15.2 percent, and the average returns/assets ratio was 13 percent.

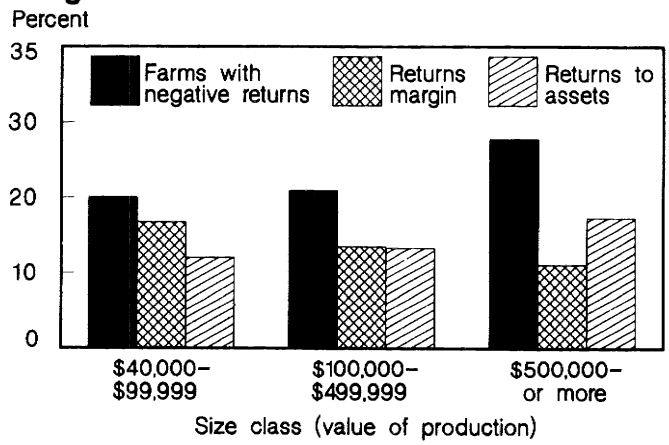
Average net returns ranged from $11,700 for small farms to $81,100 for large farms. Small farms had the highest percentage with positive returns and the highest returns margin; large farms had the highest returns/assets ratio but the lowest returns margin (fig. 3). Less than 2 percent of all farms with negative net returns were large farms, although large farms were most likely to have negative net returns.

Midsized corn farms had the smallest off–farm income of the three size classes in 1985, $10,600. Average off–farm income for the smallest farms was the highest at $16,400; the largest farms averaged $15,700 in off–farm income. Thus, off–farm income was fairly constant across size classes in contrast to farm net returns.

Net returns for specialized corn farms were low compared with several other commercial specialized crop farms. Only specialized wheat, tobacco, soybean, and other small grains farms (sorghum, oats, and barley) had lower net returns (fig. 4). Only specialized rice producers and specialized producers of other small grains had a lower average off–farm income. However, the performance of specialized corn farms was strong compared with other specialized crop farms according to two other measures:

Figure 3

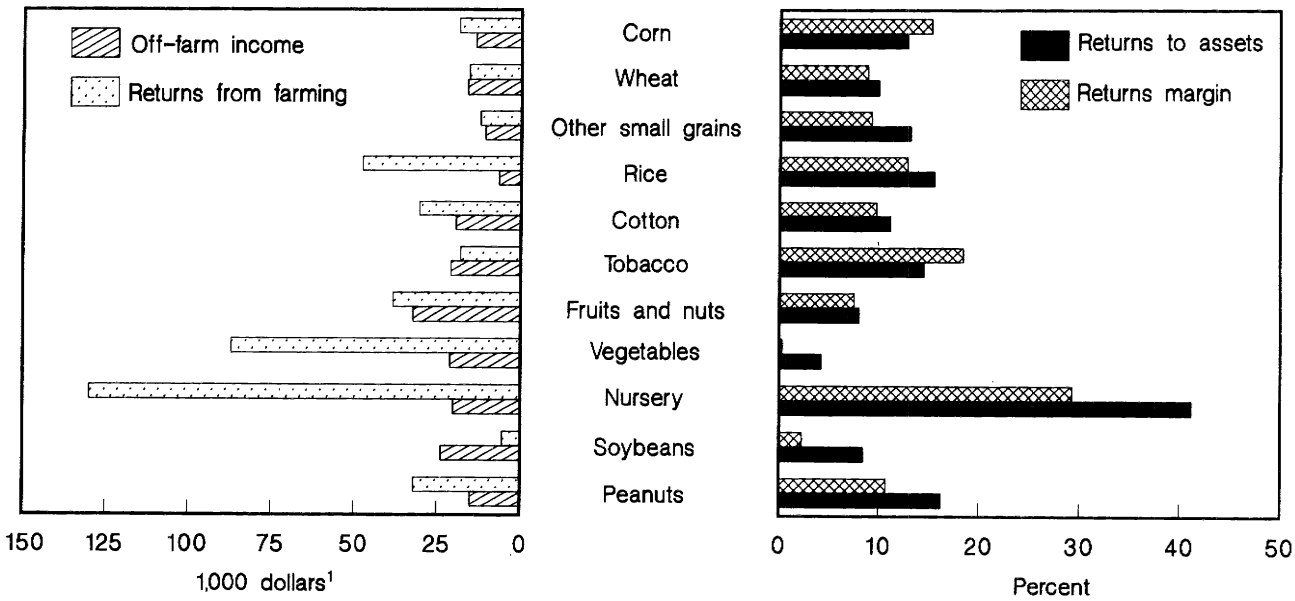
The largest specialized corn farms had the highest returns to assets, lowest returns margin in 1985



Source: 1985 Farm Costs and Returns Survey.

Figure 4

Specialized corn farms had 3rd highest returns on gross revenues among specialized crop farms in 1985



1/ Average per farm.

Source: 1985 Farm Costs and Returns Survey.

- o Specialized corn farms had a higher returns margin than other specialized crop farms, except for tobacco and nursery farms.
- o A higher percentage of specialized corn farms had positive returns than other specialized crop farms, except for nursery farms.

COST STRUCTURE OF SPECIALIZED CORN FARMS

Some prices paid for key inputs have declined since the early 1980's, leading to lower production expenses. For example, fuel expenses declined by 8 percent during 1984–85. As corn prices have declined, lower production expenses have provided farmers a way to increase their chances of surviving by containing costs.

One way to examine farm costs is to calculate a ratio of input costs to the total value of production (table 2). Cost/returns ratios of farms will differ with enterprise mix, production practices, and efficiency levels. We included cost/returns ratios with and without capital expenditures (for example, for tractors and buildings) in this analysis of the cost structure of specialized corn farms. Because cost/returns ratios are in terms of the total value of production of all products of the farms, they should not be interpreted as costs per bushel of corn.

Specialized corn farms are unusual in that the smallest size commercial operations do not have considerably higher total costs ratios. Moreover, the average cost/returns ratio of the small commercial corn farms was the lowest of the three size groups (96 cents per $1 of total production in 1985). The average ratio for the midsized farms was only slightly more at 97 cents per $1 of production, and the largest farms' average ratio was $1 per $1 of production. However, the difference between the average cost/returns ratio of the midsized and largest

Table 2--Average ratios of costs to value of production for specialized corn farms by size class, 1985

Cost components	Value of total production			
	$40,000-$99,999	$100,000-$499,999	$500,000 or more	All farms
	Cents per dollar of production			
Variable crop inputs	26	23	26	25
Fertilizer	14	12	14	13
Chemicals	6	5	6	5
Seed	7	6	5	6
Irrigation	1/	1	1	1/
Variable livestock inputs	2	4	3	3
Fuel and supplies	8	7	7	8
Labor:				
Excluding unpaid labor	4	4	8	4
Including estimated value of unpaid labor 2/	19	12	10	16
Marketing	3	2	2	2
Interest	13	14	17	14
Capital-related	13	12	11	13
Rent	25	31	26	28
Taxes and other business costs	9	7	6	8
All costs, excluding capital expenditures	96	97	100	97
All costs, including capital expenditures:				
Excluding unpaid labor	103	104	106	104
Including estimated value of unpaid labor 2/	119	113	108	116
All costs to production plus payments 3/	94	96	96	95

1/ Less than 1 cent per dollar of production.
2/ Allowance for operator and unpaid household labor based on the average wage rate for farm laborers.
3/ All costs, including capital expenditures and excluding unpaid labor estimate, to value of production plus direct Government payments.

Source: 1985 Farm Costs and Returns Survey.

farms disappears when direct Government payments are included with the value of production, reflecting the larger farms' greater participation in Government farm programs. Farms which participate in Government farm diversion programs still incur some variable and fixed costs associated with complying with conservation requirements of the programs and forgo some returns from full production levels.

The smallest specialized corn farms had the lowest rent, livestock, and interest cost ratios and the highest cost ratios for fuel, marketing, capital-related items, and taxes and general business expenses. The midsized farms had an average cost ratio for rent about 20 percent higher than the other two size groups. On average, the midsized farms rented almost 70 percent of the acres they operated under either cash or share agreements, higher than the other size groups.

The largest specialized corn farms had significantly higher hired labor and interest ratios which resulted in their higher total cost/returns ratios. A much smaller proportion of the largest farms' labor requirements are met with unpaid labor than the smaller size groups. When the cost for unpaid labor hours based on the average hired farm laborer wage rate is estimated, the labor cost ratio has the opposite trend; the largest farms have the lowest labor ratio. When this

unpaid labor estimate is included as a cost, its effect is large enough to cause the largest farms to have the lowest cost/returns ratio. However, the "real" wage rate of unpaid labor will probably differ from the average hired labor wage rate and will vary by farm depending on the alternative opportunities for unpaid farm laborers.

FINANCIAL STRESS AND STRENGTH OF SPECIALIZED CORN FARMS

The stream of low returns in the early and mid–1980's has resulted in high levels of financial stress for many commercial farmers. The higher a farmer's debts in relation to assets, the more difficulty that operator is likely to have in meeting debt service requirements. Analysis of the financial condition of operators is based on the severity of the debt burden and on whether available cash–flow could support full, partial, or no payment of debt service obligations. (See "What Is Stress?" below.)

More than one of every seven specialized corn farms was financially stressed at the end of 1985, according to the method used to categorize stress in this report (table 3). The more than 12,000 stressed corn farms (15 percent) carried a disproportionate amount (32 percent) of the $15 billion debt held by specialized corn operations.

The proportion of specialized corn operators experiencing financial stress is nearly equal to the U.S. average of 16 percent for all commercial farms. Specialized corn farms had the lowest incidence of stress of farms specializing in grain production. In addition, more than half of the debt is held by about 54,000 corn producers (66 percent of the total) that were fully able to service their debt obligations.

What Is Stress?

We considered farmers to be financially stressed if their debt burden and debt service met one of the following conditions: they were technically insolvent and obviously in danger of financial failure; they had very high debts and could not fully service their interest and principal payments; or they had high debts and could not service any of their debt payment obligations.

Debt burden is the ratio of debt to assets. It is categorized as no debt (0), low debt (0–0.4), high debt (0.4–0.7), very high debt (0.7–1.0), and technically insolvent (more than 1.0).

Debt service is the ability of farmers to meet their cash–flow requirments, including interest, principal payments, and family living expenses. It equals cash–flow plus interest expenses divided by interest expenses plus estimated principal payments due on outstanding loans.

Cash–flow is gross cash farm income plus off–farm income less cash farm expenses, capital expenditures, and a family living allowance.

Interest/sales ratio is measured as total interest expenses divided by total commodity sales. This measure is similar to the debt/asset ratio in that it provides an indicator of the debt burden of an operation while controlling the comparison for size. It also indicates the capability of operators to cover their interest expenses from the current year's sales of commodities.

However, there are two areas of weak financial performance behind the numbers shown in table 3. First, about 5,000 operators with high debt (debt/asset ratio of 0.4–0.7) were able to only partially service debt. Should corn profits erode for this group, due to yield or commodity price declines (including target prices), these farmers may quickly face severe financial difficulties.

Second, half the stressed operators had debts larger than the market value of their assets (technically insolvent). The large declines in land prices in the 1980's are the major factor behind the highly stressed financial position of these 6,000 technically insolvent specialized corn farms. Although declining land values have contributed heavily to the stress of technically insolvent specialized corn producers, most of those in business in 1985 have continued to fully or partially service interest and debt obligations.

Other factors that contribute strength to specialized corn operations include:

- o Three of every five have no debt, or their debts were less than 40 percent of their assets, as of January 1986.
- o The nearly 70,000 nonstressed specialized corn operations had nearly $3 billion positive farm cash-flow after paying operating expenses and interest obligations in 1985, an average of $39,000 per nonstressed farm.
- o Between 80 and 85 percent of all specialized corn operators (nonstressed and stressed) were able to fully or partially service debt principal and interest from farm and off-farm earnings in 1985.

About 90 percent of the nearly 70,000 nonstressed farms shown in table 4 were able to fully or partially service their debt. This group, with an average net worth of about $325,000 per farm, has the financial strength to withstand possible financial reversals resulting from commodity or land value declines. Although their total debt was nearly $10 billion in 1985, they depended on the Farmers Home Administration for less than 6 percent of their average farm debt financing.

In contrast, the approximately 6,200 stressed farms with full or partial debt service had a combined net worth of -$136 million and average annual interest obligations of more than $50,000 per farm. This group, with about $3.5 billion debt, does not have financial reserves to offset substantial future declines in earnings, should they occur.

Table 3--Financially strong and stressed specialized corn operations, January 1, 1986

Debt service category	Debt/asset ratio: No debt (0)	Low debt (0-0.4)	High debt (0.4-0.7)	Very high debt (0.7-1.0)	Insolvent (more than 1)	All
Fully able to service debt	Financial strength: 69,315 farms (85 percent of all farms) $10,304 million debt (68 percent of all farm debt)					53,955 farms $8,285 million debt
Partly able to service debt				Financial stress: 12,294 farms (15 percent of all farms) $4,824 million debt (32 percent of all farm debt)		13,029 farms $4,932 million debt
Not able to service debt						14,625 farms $1,910 million debt
All	13,008 farms 0	35,922 farms $3,780	19,280 farms $5,328	7,196 farms $3,242	6,203 farms $2,778	81,609 farms $15,128 million debt

Source: 1985 Farm Costs and Returns Survey.

Table 4--Comparison of specialized corn farms by debt service ability and stress, 1985

Item	Nonstressed farms		Stressed farms	
	Total	Per farm	Total	Per farm
	Million dollars	1,000 dollars	Million dollars	1,000 dollars
Fully or partly able to make timely debt and interest payments:				
Net worth	19,877	327	-136	-22
Real estate interest	695	11	192	31
Nonreal estate interest	419	7	131	21
Debt--				
Total	9,731	160	3,486	563
Farmers Home Administration	503	8	294	47
Federal land bank and production credit associations 1/	2,939	48	742	120
Not able to make debt and interest payments:				
Net worth	2,543	298	241	39
Real estate interest	37	4	53	9
Nonreal estate interest	31	4	59	10
Debt--				
Total	571	67	1,339	219
Farmers Home Administration	75	9	179	29
Federal land bank and production credit associations 1/	141	17	353	58

1/ The Federal land bank and production credit associations are parts of the Farm Credit System.

Source: 1985 Farm Costs and Returns Survey.

Specialized corn farms with no debt service consist of a nonstressed group with $2.5 billion net worth and only $8,000 annual interest payments per farm and a stressed group with a debt/asset ratio of about 85 percent (total net worth of less than $250 million). The latter group of about 6,000 operators had the most difficult cash-flow position but consisted of farmers with a significant combined asset base that is equal to about half the asset base of all farms with full or partial debt service. The post-1985 decline in interest rates probably most benefited indebted specialized corn farmers that were unable to service debt obligations from farm and off-farm earnings.

Socioeconomic comparisons indicate that stressed specialized corn farmers tend to be younger and have more dependents and slightly more college education than the nonstressed group (table 5). Other comparisons of income, sales, and finance categories show for 1985:

- Stressed corn farmers received direct Government payments equalling 15 percent of farm sales, compared with less than 11 percent for nonstressed corn operators. Direct payments to stressed corn farmers exceeded net cash farm income, indicating the importance of Government programs to them. However, corn producers were less dependent on direct payments than specialized wheat producers who received Government payments that exceeded 25 percent of sales.

- Stressed corn farmers had 40 percent less off-farm income and paid more than twice the interest of nonstressed corn farmers. The interest/sales ratio of 40 percent for stressed operators is much higher than the average among stressed operators in other enterprises. This relationship reflects the large share of real estate in the asset base of stressed corn farmers and the increase in interest rates on real estate loan or borrowing during recent years.

- Stressed farmers paid about 14 percent of their revenues from production as cash land rent, compared with about 8 percent for nonstressed farmers.

Table 5--Characteristics of nonstressed and stressed operators of specialized corn farms, 1985

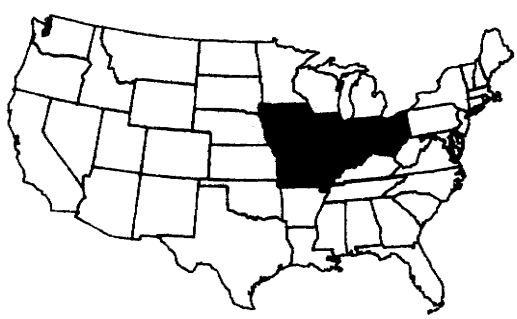
Item	Nonstressed	Stressed
	Percent	
Operator's characteristics:		
Full-time	62	67
Sole proprietors	85	85
Age less than 35	22	38
Education, some college	36	40
	Number	
Number of dependents	3.2	3.8
	Dollars	
Income, sales, and finance:		
Off-farm income	14,498	8,652
Direct Government payments	10,818	13,670
Sales	100,738	91,555
Farm cash flow	39,033	10,073
Debt	148,644	392,464
Net worth	323,441	8,510
Interest	17,139	35,303
	Percent	
Financial ratios:		
Interest to sales	16	40
Capital investment to value of production	7	5
Purchased livestock inputs to value of production	3	4
Cash rent paid to value of production	8	14
Real estate share of assets	45	40
Farmers Home Administration's share of debt	6	21

Source: 1985 Farm Costs and Returns Survey.

REGIONAL COMPARISONS OF CORN FARMS

The 12 States of the Corn Belt, Northern Plains, and Lake States regions account for about 85 percent of U.S. corn sales. The specialized corn farms account for sizable shares of their region's production and even larger shares of the corn production in their regions which is not used on the farm where it is produced as an intermediate input for a livestock enterprise. Specialized corn farms outside of the three major corn regions account for a smaller share of corn production in these areas, only 30 percent of that available for sale. Table 6 summarizes key financial information about specialized corn farms by region.

Corn Belt



The Corn Belt accounts for about 60 percent of U.S. corn sales. All of the 5 States in the Corn Belt are among the top 10 corn-producing States in the United States. More than 60 percent of all specialized corn farms are in this region, and the Corn Belt's specialized corn farms account for about 60 percent of the region's corn production which is available for sale (not used on the farm where produced for livestock feed). Half of the region's specialized corn farms are in the small commercial size group of $40,000-$99,999 in production, and slightly less than half are in the midsized group. Only 1 percent of the specialized corn farms in the Corn Belt have total production of $500,000 or more.

Combined Corn–Soybean Operations

More farms produce hay than any other crop. Corn and soybeans are the second and third most commonly grown crops on U.S. farms. In some regions, corn and soybeans are often produced on the same farming operation because their production requires most of the same inputs and allows farmers to manage their risk through diversification. Of the 81,600 specialized corn farms in 1985, 86 percent also grew some soybeans. The soybean production of specialized corn farms amounted to about 30 percent of U.S. production in 1985. The corn–soybean combination was most common in the Corn Belt and Lake States where over 90 percent of specialized corn farms also produced some soybeans. In the Northern Plains, about 70 percent of specialized corn farms produced some soybeans. Outside of the major corn regions, less than 50 percent of the specialized corn farms produced soybeans. The corn–soybean combination was somewhat more common for midsized corn farms, but 80 percent or more of the specialized corn farms in the other two size classes also produced soybeans.

On average, specialized corn farms which also produced some soybeans were in a financially better position in 1985 than specialized corn farms which did not produce soybeans. Their average net returns were about $3,500 higher, a lower percentage had negative net returns, their returns margin was greater, and their returns on assets were greater. The cost/returns ratios for many of the production inputs were somewhat lower with the exception of rented land which was slightly higher for specialized corn farms which grew soybeans. Corn–soybean farms tended to have lower asset and debt levels, although their debt/asset levels were about equal to corn farms not producing soybeans. A lower percentage of corn farms which produced soybeans were in financial stress in 1985 (14 percent), compared with specialized corn farms not producing soybeans (22 percent). The table at right provides a summary profile of financial indicators for corn–soybean farms.

Financial profile of corn-soybean farms

Indicator	Dollars
Average net returns	22,200
Average gross revenue	151,800
Average assets	449,600
Average debt	181,300
	Percent
Gross revenues from soybeans	26.4
Gross revenues from direct Government payments	6.9
Percent with negative returns	19.0
Returns on assets	13.9
Returns margin	17.4
Stressed farms	13.9
	Dollars
Average costs/production ratio:	
Excluding capital expenditures	0.93
Including capital expenditures	1.00

Source: 1985 Farm Costs and Returns Survey.

The specialized farms in the Corn Belt were the most financially prosperous of all regions (table 6). The Corn Belt had the highest returns/assets ratio, the lowest percentage of farms with negative net returns, the lowest cost/returns ratio, and the lowest percentage of farms in financial stress. The following facts pertain to the specialized corn farms in the Corn Belt:

Table 6--Financial indicators of specialized corn farms by region, 1985

Item	Corn Belt	Northern Plains	Lake States	Other regions	All
			Dollars 1/		
Corn sales	85,569	104,060	73,172	119,688	88,446
Soybean sales	39,507	14,589	25,794	17,994	33,179
Gross revenues	148,268	174,810	131,206	186,470	151,793
Government payments	9,676	19,500	11,657	10,973	11,248
Capital expenditures	7,209	10,066	11,873	17,537	8,858
Debt	169,671	202,212	214,599	256,807	185,373
Interest	18,500	20,068	21,367	30,763	19,875
Net returns	21,558	27,106	11,829	-12,597	18,731
Equity	265,166	244,877	265,609	469,451	275,999
Assets	434,836	447,089	480,208	726,258	461,372
			Percent		
Returns margin	17	17	13	-2	15
Returns to assets	14	13	10	5	13
Farms with negative revenue	17	19	31	43	21
Cost/returns ratio 2/	99	106	110	135	104
Debt/asset ratio	39	45	45	35	40
Interest/sales ratio	16	23	31	20	19
Corn share of gross revenue	59	59	55	62	59
Stressed farms	12	NA	24	NA	15

NA = not available.
1/ Per farm average.
2/ The average of all costs (plus capital expenditures) as a percentage of the value of production.

Source: 1985 Farm Costs and Returns Survey.

- Over 55 percent of all specialized corn farmers with negative net returns in 1985 were in the Corn Belt. The heavy concentration of financial difficulties has contributed to the large land price declines in the region.

- Government payments were the lowest on a per farm basis in the Corn Belt, averaging about $9,700 or 6.6 percent of gross revenues. Over 58 percent of all direct Government payments to specialized corn farms went to the Corn Belt.

- Crop sales other than corn or soybeans were less than 2 percent of gross revenues in the Corn Belt, compared with at least 6.6 percent in all other regions.

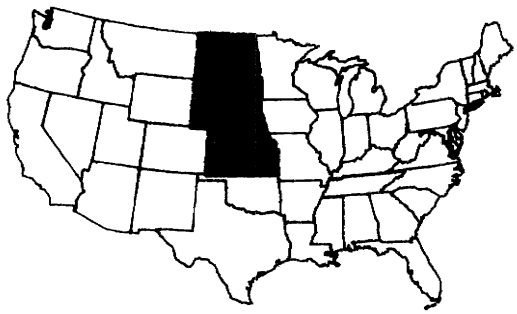
- The only major expense for which specialized corn farms in the Corn Belt did not have the lowest cost ratio was rent. These operators rented a larger share of their operated acres than the other major corn regions. Almost 70 percent of their acres were rented in on a cash or share basis.

- Financial stress hit 12 percent of specialized corn farmers in the Corn Belt. Those farmers had an average debt of $340,000-$360,000 and an average equity of $5,000 or less on January 1, 1986. High debt and very low equity have made these farmers very vulnerable to recent land price declines.

- Stressed farmers in this region paid an average of $55,000–$60,000 for interest and cash rent, double the level of financially strong corn farms.

- Only about 30 percent of stressed farms' assets were real estate, compared with 40–50 percent of the average nonstressed farms'. Thus, financial stress was not simply a problem of farmers purchasing high priced land; it was also related to low equity and to a cost/price squeeze where lower commodity prices did not permit full service of substantial debt burdens.

Northern Plains



Nebraska is the major corn-producing State in the Northern Plains region; it ranked number three in the country in corn sales in 1985. The region accounted for 16 percent of U.S. corn sales. About 12 percent of all specialized corn farms are in this region. Their share of the region's corn production is very similar to the specialized corn farms in the Corn Belt--about 60 percent.

The specialized corn farms in the Northern Plains had the highest average net returns, $27,106, and shared the second highest returns margin of 16.5 percent with the Corn Belt. However, the overall financial performance of specialized corn farms in this region was moderate in 1985, neither the best nor the worst of other major corn regions. The following facts pertain to the specialized corn farms in the Northern Plains:

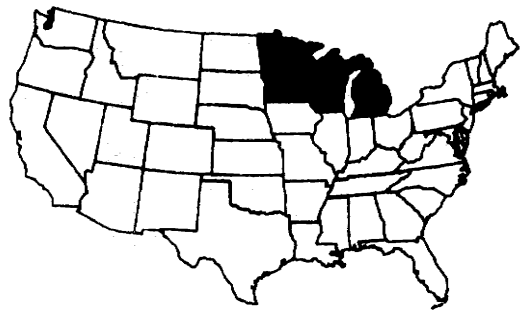
- Average direct Government payments were the highest on a per farm basis for the Northern Plains region, averaging about $19,500 or almost 11 percent of gross revenue. These payments, which were 70–100 percent higher than was typical in other regions, helped substitute for lower off-farm income (50 percent less than for the average U.S. specialized corn farm).

- Because of their greater receipt of Government payments per farm, the cost/returns ratio for specialized corn farms in this region declined to only 2 cents more than the Corn Belt's when direct Government payments were included with the value of production.

- Although this region's farms paid $2,000–$4,000 lower total interest and rent expense than specialized farms in other regions, substantially lower land values resulted in debt/asset ratios about 5 percentage points higher than prevalent in other major corn regions.

- The underlying financial strength in this region is contributed by the 70–80 percent of corn farms that were nonstressed with average equity of $320,000–$340,000, and average debt of $125,000–$140,000 on January 1, 1986.

Lake States



The Lake States (Michigan, Minnesota, and Wisconsin) account for over 10 percent of U.S. corn sales. All 3 States are among the top 10 corn-producing States in the country. About 13 percent of all specialized corn farms are located in this region. These farms have a smaller share of their region's production than do the specialized corn farms in the Corn Belt and Northern Plains. They produce less than 45 percent of the region's corn that is not used on the farm where it is produced for livestock feed.

The specialized corn farms in the Lake States were generally less financially prosperous than the other major corn regions. Only specialized corn farms outside the major corn regions were in a worse financial position. However, the specialized corn farms outside the major corn regions had higher asset and equity levels than the major corn regions, while the Lake States had the highest asset and equity levels of the major corn regions. A major factor in the relatively poor financial situation of specialized corn farms in this region is the imbalance between the debt load and the returns. The interest/sales ratio of 31 percent was the highest of the three regions. The following facts pertain to the specialized corn farms in the Lake States:

- Lake States farms were the least specialized; corn sales accounted for only 55 percent of gross revenues. However, diversity of farm production was not due to livestock sales, which were only 2 percent of gross revenues. Lower livestock earnings were offset by an average of $5,700 of farm-related income from such sources as machine hire and custom work services.

- Nearly one in four corn farms was stressed (24 percent) in the Lake States. The debt on these farms averaged $440,000-$470,000, and these farms held half the specialized corn farm debt in the Lake States on January 1, 1986.

- Farm cash income of stressed farms was -$3,000, compared with $15,000 for nonstressed farms in 1985, reflecting the cash-flow difficulties that were widely experienced in a region with the highest cost/returns relationship.

- Stressed corn farms were larger, but a smaller proportion of their assets were real estate. Stressed farmers in the region paid 50 percent more rent than nonstressed farmers, contributing to financial problems that were not fully offset by the efficiencies of larger farm size.

FOR ADDITIONAL INFORMATION...

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Acknowledgments

The authors appreciate the graphics design assistance of Agnes Chesley and Barbara Allen and the editorial assistance of Lindsay Mann.

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The financial performance of farms varies significantly by type of commodity production, and many of the important farm commodity policy programs are relevant only to farms of a commercial size. USDA's Economic Research Service is publishing a series of bulletins aimed at informing those interested in the financial performance of commercial size farms which specialize in particular commodities:

Financial Performance of Specialized Dairy Farms (AIB–519)
Financial Performance of Specialized Wheat Farms (AIB–528)
Financial Performance of Specialized Corn Farms (AIB–529)
Financial Performance of Specialized Cotton Farms (forthcoming)

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